Thunderstorm Program General Overview

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The original document contains color images.

14. ABSTRACT
Thunderstorm provides OSD, interagency partners, Combatant Commanders, Services, academia, government laboratories and commercial vendors with an enduring multi-Intelligence technology demonstration venue. New and existing ISR technologies can be integrated, evaluated and assessed under real world conditions with scripted and unscripted scenarios.

15. SUBJECT TERMS
WMD, CBRNE, chemical, biological, biometreics, ISR, counterterrorism, force protection, physical security, doctrine development

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Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std Z39-18

Thunderstorm Program
Methodology & Venues

Conducts a series of events each fiscal year for DoD selected areas of interest

Analytical Gaming Workshop

- o Think Tank Forum for Subject Matter Experts (SMEs) to refine threat concepts to inform future Thunderstorm demonstrations
- o Increases understanding of threats and technologies to increase effectiveness of mitigation approaches
- o Broadens consideration of implications/ impacts
- o Increases interagency relationships and engagement and raises Thunderstorm Program focus awareness
- o Design of event tailored to each specific challenge
- o Participants invited based on expertise and to ensure diverse perspectives
- o NeXTech framework used as lens to analyze impact of convergence
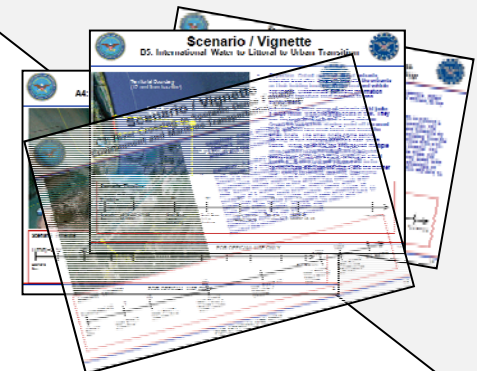- o Considers a broad range of potential threat concepts

Tabletop Experiment (TTX)

- o Scenarios are used to focus on process, procedures and potential capabilities
- o SMEs attend from various DoD agencies and operational partners from across the government
- o Can be conducted at a any classification level
- o Can be held at one location or distributed to multiple locations via a secure network
- o Assists in identifying current or potential challenges and gaps across the operational partners' respective organizations
- o Capability gaps are selected and prioritized in order to be considered for technology demonstrations

Technology Field Demonstrations

- o Potential capabilities are solicited through FedBizOpps and word of mouth
- o Selected demonstrators must "Pay-to-Play"
- o Evaluates and assesses new and emerging technologies to address identified gaps
- o Conducted in geographically relevant areas which provide an operational environment
- o Uses scripted scenarios and actors to mimic threat activities observed within the Area of Responsibility (AOR)
- o Explores low cost solutions, technologies, information sharing, and improved techniques, tactics, and procedures at the Technology Readiness Levels (TRLs) 3-7
- o Not a formal test event or substitute for developmental or operational test and evaluation; No Penalty if it doesn't work (gives tech developers value feedback/insights from potential customers)

Thunderstorm Intent
Current Guidance

- **Focus on DOD's Ability to "Deter, Predict, and Interdict" Threats**
  - Deter - Influence target audiences through quickly understanding local environments and populations and leveraging key influence nodes
  - Predict - Demonstrate the capability to predict threats using "Big Data" and other non traditional sources and the fusion/pairing of these sources
  - Interdict – Exploit sensor capabilities to develop actionable intelligence and cue appropriate response actions

Deter/Predict   **Detect**   **Interdict**

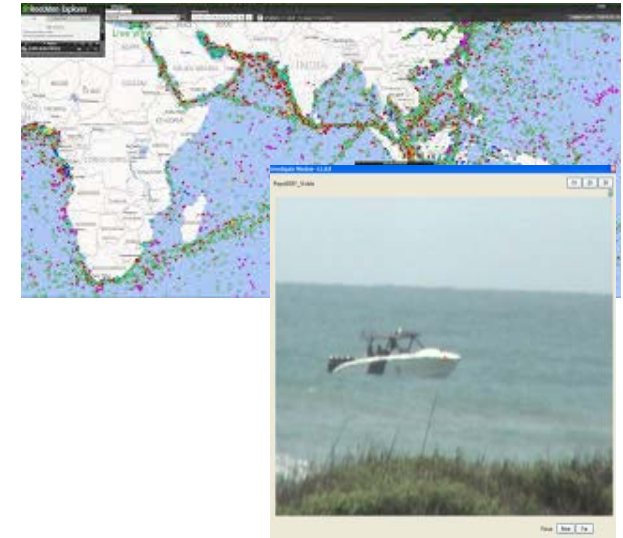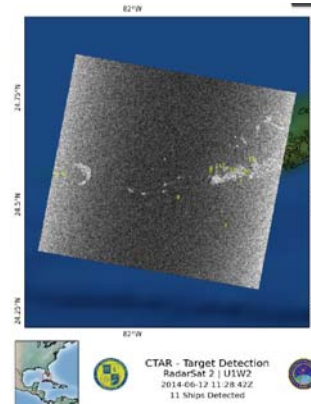Thunderstorm Application Spectrum

- **Focus on Emerging/Asymmetrical Threats and Environments to enhance Warfighting Architectures and Interagency Collaboration**

- **Best match Key Operational/Supporting Partnerships, Venues and Technologies within Thunderstorm based on Strategic Intent and the Operational Plans.**
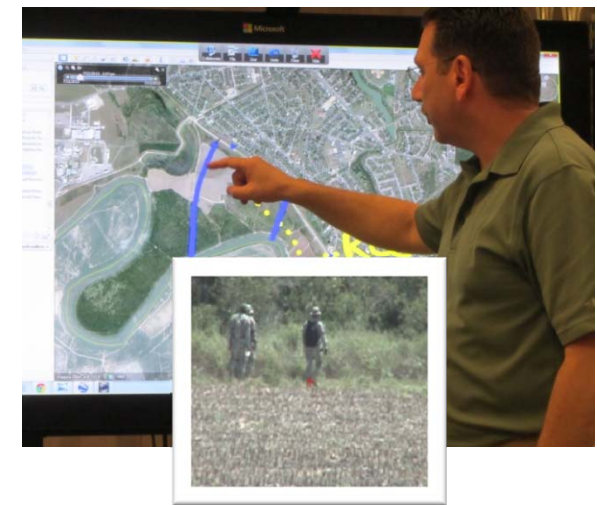
> *"Thunderstorm is our Match.com which connects the best technology to our challenges."* Colonel Daniel Ermer, USMC
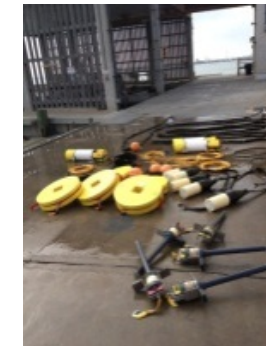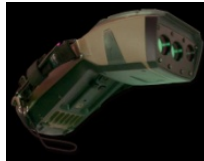
Benefits the Operational Partners

- Collaboration for addressing operational environment challenges

- Opportunity to brainstorm and war-game in a controlled setting

- Venue to observe new and emerging technologies in the AOR

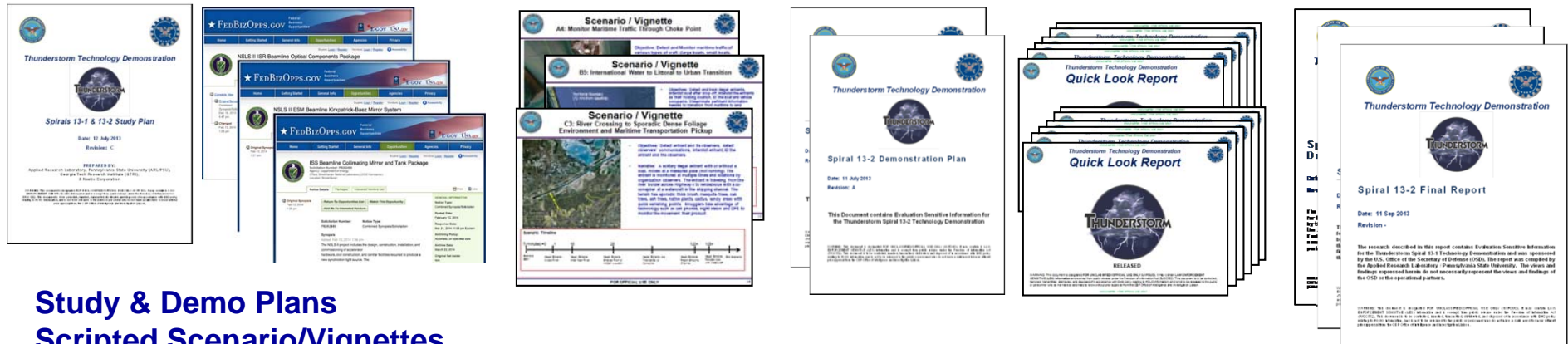- Opportunity to pair technologies for improving effectiveness

Benefits the Demonstrators

- Realistic technology deployment
- Ability to demonstrate low TRL technologies
- End user interaction
- Constructive feedback
- Insight to operational environment challenges
- Opportunity to interact and collaborate with other demonstration technologies

Conduct of Demonstration

Study & Demo Plans
Scripted Scenario/Vignettes
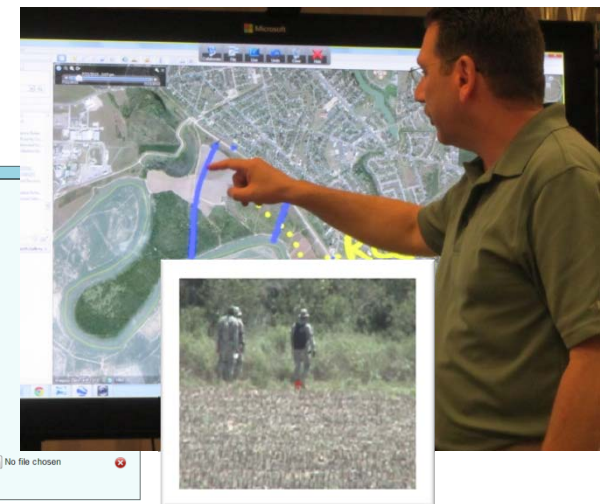**Requests & Permits (Land, Frequency, FAA)**

Capabilities Solicitation (FedBizOpps)
Technologies Selected

Coordinate with Operational Partners (Blue Cell)
Provide Demo Controllers' Roles (White Cell)
Establish Scripted Actors (Red Cell)

Technology Coordination Visits
Demonstration Site Visits
Senior Steering Group - Program Reviews

Link-In Data Sharing Nodes

Reports (Daily Quick Looks & Final Reports)

Previous Thunderstorm Spirals

Demonstration	Operational Partner(s)	Focus	Location	Demonstrated Technologies
Spiral 2 Field Demonstration (9-20 Jun 2009)	JIATF-S	Maritime Domain Awareness	Key West, FL; US SOUTHCOM AOR	14
Spiral 3 Field Demonstration (1-16 Mar & 19-27 Mar 2010)	JIATF-S	Maritime Domain Awareness	Key West, FL; US SOUTHCOM AOR	10
Spiral 4 Field Demonstration (2-13 May 2011)	CBP, JIATF-S	Border Security	Southern AZ; CBP, Tucson Sector	4
Spiral 5 Field Demonstration (13-24 Aug 2012)	CBP, USCG, JIATF-S	Border Security	Southern TX; CBP, RGV Sector	6
Spiral 13-1 Field Demonstration (6-17 May 2013)	10 Operational Partners	Border Security	Southern TX; CBP, RGV Sector	13
Spiral 13-2 Field Demonstration (15-26 Jul 2013)	10 Operational Partners	Border Security	Southern TX; CBP, RGV Sector	16
Spiral 14-1 Threat Convergence Analysis (TCA) Panel (26-27 Mar 2014)	(25 organizations participated)	TCA on Robotics, Cyber, Bio, EW	Reston, VA	N/A
Spiral 14-2 Tabletop Experiment (TTX) (26-28 Feb 2014)	18 Operational Partners	Countering Chem/Bio WMD via South East Maritime Pathways to CONUS	Key West, FL and Reston, VA	N/A
Spiral 14-3 Field Demonstration (27 May – 6 Jun 2014)	18 Operational Partners	Countering Chem/Bio WMD via South East Maritime Pathways to CONUS	USCG Base, Key West, FL	36

Vendors with relevant technologies and capabilities are encouraged to respond to the Thunderstorm FEDBIZOPS postings.

For more information on the program and how to engage, please contact the:

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or

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